



ON GUARD

SAN FRANCISCO BAY GROUP 2

Group 2's Monthly Magazine

Welcome to On Guard

By Lt Col Noel Luneau, Public Affairs Officer Group 2

Welcome to the fifth edition of the Group 2 Magazine - On Guard!

In this edition we have a special section on Veterans Day honoring our veterans, an article on NRA Marksmanship Event, an article on C/1stLt Amato's flying training, an article on the SCCSO Joint Exercise, and many updates to our Aircraft Professionalism and Safety section.

Article Submissions. This is your magazine, and we welcome all of your contributions to it with short stories, photos, and short videos of your Squadron or event. We are looking for articles for the **December edition**, due 30 Nov 21. Please send all articles to the Group 2 website [Here](#).

Also please tag Group 2 on Instagram, Facebook, and Twitter and we will collect posts, stories, and reels there. Tag us on **Instagram** and **Facebook** here: @civilairpatrolgroup2. Tag us on **Twitter** here: @CAPGroup2CA.

Just a reminder that we have a new **YouTube channel** for the group so send us any videos that you want to share with the world!

The QR Code to the right is a link to an online version with viewable video clips.



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ON GUARD SAN FRANCISCO BAY GROUP 2

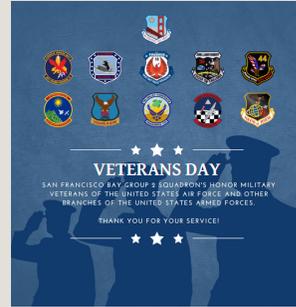
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GENERAL - VETERANS DAY

VETERANS DAY

GROUP COMMANDER, LT COL SHAWN LAWSON

We observe Veterans Day on November 11th of each year and it carries special significance for many. We honor those that have served in the Armed Forces of the United States across all military branches. It's a day dedicated to showing our appreciation for their sacrifice in whatever capacity they served. To us Veterans, it's a day we look back and reflect on what we've accomplished and the people we've met, for better or worse. We extend that sense of service, and share it in many respects, to the members of this organization.

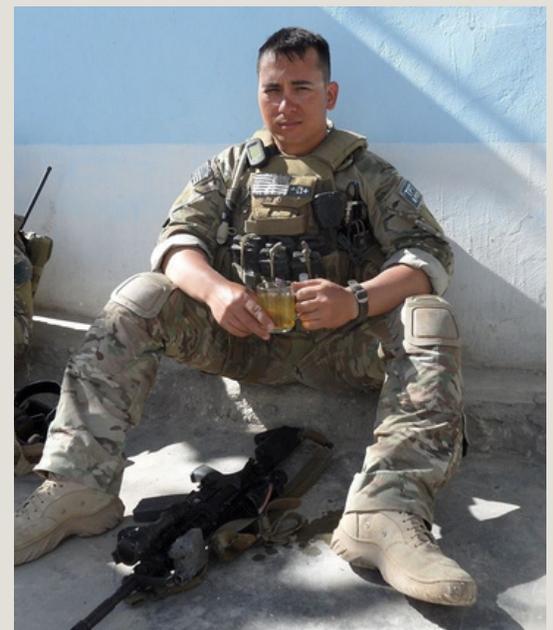
I've asked Veterans in Group 2, to send a couple pictures that encapsulate their time in the service. We have put together a slideshow that is presented below and also uploaded to our Group 2 YouTube.

If I didn't get a chance to say it before the 11th, Happy Veteran's Day and to our Veterans out there, thank you for your service.

The slideshow can be viewed on our YouTube channel:
<https://www.youtube.com/watch?v=eOmgmLBQErM>



SSG Lawson (US Army PSYOP - right) conducting Village Stability Operations (VSO) in Eastern Afghanistan (2012)



SSG Lawson (US Army PSYOP - right) conducting Village Stability Operations (VSO) in Eastern Afghanistan (2012)

GENERAL - VETERANS DAY

VETERANS DAY

CONTINUED...



Lt Col Shawn Lawson, (SGT Lawson US Army) handing out toys to children in Northern Iraq (2009)



Lt Col (Capt USN) Kanan Ott. The above photo is c.2007 at Bagram airfield (OAIX) Afghanistan [elev 4,868']. I am visible in the very back, center. The photo was taken in front of a P-3C Orion. Our crew was tasked with ~10 hour overland reconnaissance missions. I was likely a qualified copilot at that point and not yet qualified as a mission commander. Officers only carried a beretta 9mm, but we had shotguns and AR-15s for 'unplanned landings.' The Russian grade jet fuel was trucked from nearby countries. The base has active mine fields left by the Russians and these fields were denoted by danger signs. Don't wander off...



Lt Col (Capt USN) Kanan Ott. The above photo in Aug 2014 on the occasion of a change of command ceremony. I assumed command of Navy Fleet Logistics Support Squadron FIVE-ONE (VR-51) at Marine Corps Base Hawaii, Kaneohe Bay. At that time, VR-51 operated several C-20Gs (Gulfstream IV) used for responsive and flexible airlift of high priority people and things to anywhere, anytime.



Maj Ricardo Medal, (LTC Medal USMC) Pictured left to right: 7th Division G-1 Operations Officer, 7th Division Assistant Chief of Staff G-1, Maj Ricardo Medal, Task Force S-1 OIC.

GENERAL - VETERANS DAY

VETERANS DAY

CONTINUED...



Maj Mark Fridell, (Maj Fridell USAF), spent five years as an instructor flying T-37s after pilot training, then 13 years flying C-5s.



Lt Col Grace Edinboro, (COL Edinboro CA Army National Guard) G TAC CP – a temporary command she had in 2010 to turn over remaining Detention Operations to the Iraqis.



Captain Michael Carter, (PVT Carter, Army Guard), on the firing range during basic training learning to shoot the M3 "grease gun" at Fort Knox. (c.1984).



Captain Michael Carter, (2LT Carter, Army Guard), practicing emplacement of an M119 artillery gun at Artillery Officer Basic Course in Fort Sill. (c.1992).

GENERAL - VETERANS DAY

VETERANS DAY

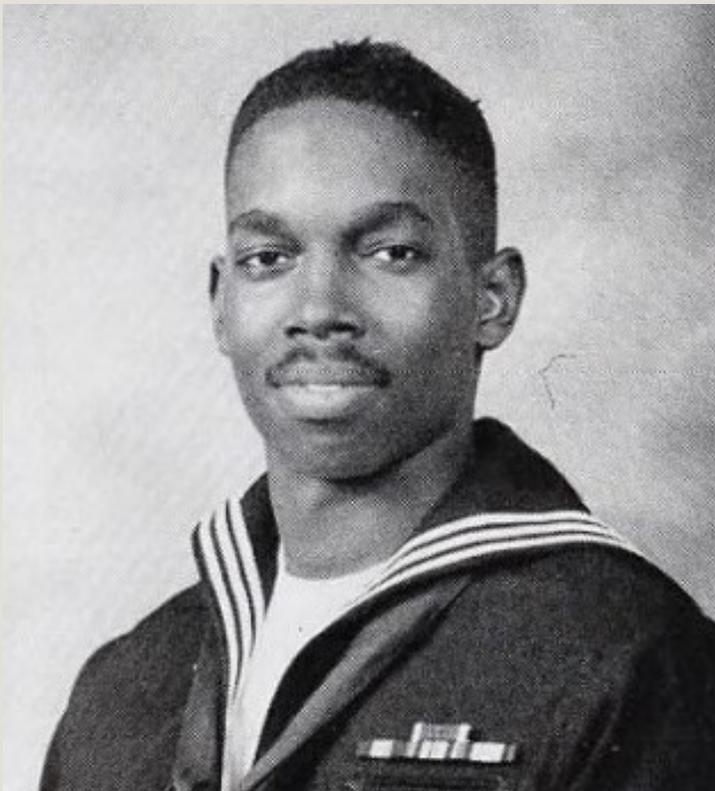
CONTINUED...



1st Lt Michael Fritsche, (SSG Fritsche US Army) with son CC/TSgt Sean Michael Fritsche.



Lt Alex Arnoldy, (SrA Arnoldy USAF) served from 1986 - 1990. He was a Weapons Systems Specialist on the F-15C/D Eagle (and later the F-15E Strike Eagle).



1st Lt Kimate Richards, (E5 US Navy Electronics Technician).



Maj Brandon Hoge, (PFC Hoge USMC) on leave from Boot Camp (2001).

GENERAL - VETERANS DAY

VETERANS DAY

CONTINUED...



Ch, Capt Annamae Taubeneck, (US Army) 1993-1998 as a Helicopter Crewchief, MOS 67N20 UH-1H Huey and 67T20 UH-60 Blackhawk, with deployments to Kuwait and the Bosnian War.



LT Joshua Edwards (USN) with interpreter. Nangarhar Province, Afghanistan - May 2020.



Maj Peter McCutchen, (AW3 USN).



Lt Col David Bartlebaugh, (USAF), on a KC135 Young Tiger deployment to Utapao, Thailand 1972. He is 2nd from the left.

GENERAL - VETERANS DAY

VETERANS DAY

CONTINUED...



Capt Joseph Spears (US Army 1992 – 1996) far right during infantry exercises in Grafenwohr, Germany



SM Austin Welch, (1LT US Army) In front of an Apache helicopter.



Lt Col Noel Luneau, (Capt Luneau, RCAF 1981-1996) upon his graduation from Canadian Forces Recruiting Training.

VETERANS DAY

SAN FRANCISCO BAY GROUP 2 SQUADRON'S HONOR MILITARY VETERANS OF THE UNITED STATES AIR FORCE AND OTHER BRANCHES OF THE UNITED STATES ARMED FORCES.

THANK YOU FOR YOUR SERVICE!

GENERAL - BRANDING

REPOST - NEW CAP BRANDING

CAP HAS A NEW BRANDING SITE - [HTTP://BRAND.GOCIVILAIRPATROL.COM](http://brand.gocivilairpatrol.com)

There is a new CAP mission Statement: **Volunteers serving America's communities, saving lives, and shaping futures.**

Here are some of the changes:

1. There is a new About CAP introduction here: <https://company-214080.frontify.com/d/crhrf1Aw1Ci9/brand-guide#/introduction/welcome>
2. Where you can and cannot use the various CAP logos and seals: <https://company-214080.frontify.com/d/crhrf1Aw1Ci9/brand-guide#/logos-graphics/overview>
3. The five official colors of CAP to be used in all marketing communications: <https://company-214080.frontify.com/d/crhrf1Aw1Ci9/brand-guide#/logos-graphics/overview>
4. The three official CAP Fonts: <https://company-214080.frontify.com/d/crhrf1Aw1Ci9/brand-guide#/colors-typography/typography>
5. When to use our name: <https://company-214080.frontify.com/d/crhrf1Aw1Ci9/brand-guide#/style-guide/civil-air-patrol-name>
6. General Terms, Abbreviations, etc: <https://company-214080.frontify.com/d/crhrf1Aw1Ci9/brand-guide#/style-guide/general-terms-abbreviations-syntax>
7. CAP Specific Terms and Abbreviations: <https://company-214080.frontify.com/d/crhrf1Aw1Ci9/brand-guide#/style-guide/cap-specific-terms-abbreviations>
8. Grade/Rank abbreviations: <https://company-214080.frontify.com/d/crhrf1Aw1Ci9/brand-guide#/style-guide/grade-rank-abbreviations>
9. Email Signature guide: <https://company-214080.frontify.com/d/crhrf1Aw1Ci9/brand-guide#/resources-tools/email-signature>
10. Mission, Vision & Core Values: <https://company-214080.frontify.com/d/crhrf1Aw1Ci9/brand-guide#/resources-tools/mission-vision-core-values>
11. PAO Templates and Files: <https://company-214080.frontify.com/d/crhrf1Aw1Ci9/brand-guide#/resources-tools/templates-files>

Some Changes/Highlights:

- Squadron names may be further shortened by using abbreviations for the type of unit. Squadrons may use "Cdt. Sq.", "Comp. Sq.", or "Sr. Sq." as appropriate. The shorter abbreviation "Sq." may be used for all squadron types. Groups may use the abbreviation "Gp."
- Grades: For external publication Lt. Col. for Internal publication Lt Col
- When spoken, Civil Air Patrol will be referred to by its full name or by its initials C-A-P, which are verbalized as letters "C", "A", "P" and not spoken as a single word "cap."
- The word "headquarters" will not be used with squadron or flight names, as those units do not have headquarters elements.
- The terms "congressionally mandated missions", "three missions", or variations thereof will not be used to describe the internal program areas; **aerospace education, cadet programs and emergency services are our three main "programs"**.

CADET PROGRAMS

CALIFORNIA WING HOSTS IN-PERSON CADET NONCOMMISSIONED OFFICER SCHOOL

C/CAPT LEON G. ZHAO
CADET DEPUTY COMMANDER FOR SUPPORT
CAWG NCOS NORTH 2021

Cadet Noncommissioned Officer School (NCOS) is the third school in California Wing's Integrated Leadership Program. The goal of NCOS is to train junior NCOs and give them the foundation to be new mentors and leaders. Held in San Francisco over the weekend of Oct. 22-24, NCOS North was California Wing's first in-person ILP school since March 2020. 1st Lt James Hockel, the school Commandant, says that "NCOS is the first step into leadership for many of these students." Helping these students take that first step into leadership is needed now more than ever: "After two years without in-person schools, many of these young people have never even stood and presented in front of a class," says Lieutenant Hockel. "Our goal is to introduce them to these life skills like public speaking and teaching while also delivering the basic knowledge and techniques for drill and ceremonies, uniform wear, customs and courtesies, and physical training needed to be an effective cadet NCO."

NCOS attracted staff and students from all over California Wing. The student body represented twenty-two of the wing's fifty-four cadet or composite units, and senior member support brought their expertise from as far as Coeur d'Alene, Idaho; Plano, Texas; and Montgomery, Alabama.

The cadet cadre and senior staff spent hundreds of hours preparing for the event, brushing up on their NCO skills, practicing their class presentations, and organizing the logistics for the event. During NCOS, the cadet cadre worked constantly to provide feedback to the students. To encourage problem-solving among the students, the cadet cadre deployed a socratic method, pushing the students to become familiar with the manuals, regulations, and other tools available to them.

The students attended classes that introduced them to the fundamentals of leadership and mentorship. For example, the Instructional Methods class taught students how to give presentations and the Drill Commander class gave students the basic keys to becoming a leader in drill and ceremonies. After every classroom session, the students reinforced their learning with hands-on activities. Each student gave two oral presentations in front of their peers and practiced leading and teaching drill and ceremonies with a flight. The most critical skill taught at NCOS was accountability: The cadet cadre never ordered students to move on to the next activity or told them the best way to manage their time. Instead, it was the responsibility of the students to make sure that the schedule was followed and that all the objectives were accomplished.

C/Capt Varsha Penumatsa, the school's Cadet Commander, said: "The skills that we taught at NCOS will serve the students for the rest of their lives, inside and outside of Civil Air Patrol. There were hurdles that we had to overcome to deliver this activity in-person, but I am so thankful for the twenty-two seniors, twenty-eight cadre, and, most importantly, forty-seven students that helped make NCOS a success." Cadet Captain Penumatsa says that she is "so proud of all the students and what they have accomplished!"



1st Lt Tyler Beal teaching Instructional Methods to the students. Photo credits: C/1st Lt Lena R. Amato and C/2d Lt Anastasia I. Cardona.

CADET PROGRAMS

SQUADRON 86 GOES "NAVY"

LT COL GRACE EDINBORO

Go Navy – Beat Army! Cadets from San Francisco Cadet Squadron 86 participated in San Francisco Fleet Week on October 10th.

As part of their quarterly "Armory Bivouac", cadets, seniors and a few parents spent the day enjoying what the US Navy had to offer – ship tours, military equipment exhibitions, a STEM Village, and an awesome airshow.



Squadron 86 participants on the deck of the USS Rushmore. (L-R: Front: C/Amn Zorianna Mui, C/Amn Isaac Honikman, C/A1C Harrison Wong, C/Amn Andrew Ham, George, 2d Lt Larry Wong, Navy Chief, Back: Lt Col Grace Edinboro, Navy Chief, C/MSgt Toby Lee, C/TSgt Andrew Hui, 1st Lt Andrew Ceronsky, C/A1C Benjamin Chow, C/A1C Justin Loo, C/SMSgt Ainsley Wong, Capt Remi Nadeau, C/A1C Aaron Ling, Wly Anderson, C/AB Jason Viernes, C/2d Lt Carter Wong

The first tour of the day took the group through the USS Rushmore, a Whidbey Island-class dock landing ship. Seamen from the ship described their duties and the capabilities the ship offers the fleet. The ship is on its way to its next assignment, in transit to Sasebo Navy Base in Japan. Cadets checked out material used for medical training, the weapons the crew has access to, and looked at the system to get equipment, especially vehicles, loaded and unloaded.

At San Francisco's Marina Green, cadets enjoyed a STEM Center and many exhibits in the Humanitarian Assistance Village, where federal and state agencies and organizations who support humanitarian relief operations showed off equipment, gear, and showed the public how they operate.



C/A1C Aaron Ling with M60 Machine Gun

This was Day 2 of Squadron 86's "Armory Bivouac", an overnight training event held quarterly at their armory. On Saturday, cadets trained in Color Guard operations, flight simulators, radio communication, model rockets, the CAP Uniform (boot shining!), watched Apollo 13, and enjoyed smores and toasted marshmallows over a campfire that's quickly becoming a squadron tradition. Accommodations at the armory aren't lush, but the squadron members enjoy having a whole day and night to train and get to know each other better.

Excellence in Action!



C/A1C Harrison Wong fires the water cannon, while C/MSgt Toby Lee and C/2d Lt Carter Wong wait their turn

CADET PROGRAMS

GROUP 2 HOSTS ITS SECOND NRA MARKSMANSHIP EVENT HAYWARD, CA — OCTOBER 9, 2021

2ND LT. ROBIN YANG

Building upon the previous event held in June, Group 2 held another NRA Marksmanship event attended by 16 cadets. Half of the cadets were veterans of the June event looking forward to achieving higher levels of proficiency and the other half were shooting for the first time.

There are six levels in the NRA Marksmanship program and shooters must qualify at each level before advancing to the next. The first level, Pro-Marksman, requires shooting a minimum score of 100 out of a possible 200 points twice in order to qualify. The second level, Marksman, requires shooting at least 125 out of 200 points twice. Each level requires progressively higher minimum scores and successively more strings of fire until reaching the final level—Distinguished Expert. Qualifying as a Distinguished Expert requires scoring at least 191 points out of 200, and achieving that score ten times. Of course before attempting to qualify as a Distinguished Expert shooters must first qualify in each of the five previous levels.

The cadets were instructed by NRA Rifle Instructors 1st Lt. James Bird, 2nd Lt. Garrison Buchanan, SM Bhargava Narayana, Evans Pang and 2nd Lt. Robin Yang. This was the first time Lt. Bird, Lt. Buchanan and SM Narayana helped instruct and their assistance proved invaluable. By the time the last of 2000 rounds were fired that day the cadets earned 5 Marksman, 7 Marksman 1st class, 2 Sharpshooter and 2 Expert badges.

Besides practicing their shooting skills, the cadets also displayed exemplary teamwork and camaraderie behind the firing line as well. When they weren't shooting, cadets needed to score their targets, load magazines and prep targets for their next string of fire. With little time to spare before the entire group would shoot again, cadets that finished early would help their fellow teammates without being asked. That esprit de corps and "no cadet left behind" mentality was appreciated by the Senior Members.

This was the second NRA Marksmanship event but by no means will it be the last. Group 2 plans to make this a regular event every spring and fall. Given its popularity and how well the cadets have done, we may see some cadets achieve the Distinguished Expert qualification in 2022. Stay tuned!

If your Squadron or Group would like information on hosting an NRA Marksmanship event for CAP cadets contact 2nd Lt. Robin Yang (robin.yang@cawgcap.org).



1st Lt. Bird and SM Narayana instruct cadets C/A1C Kai Kapur, C/SMSgt Cayden Gu, C/TSgt Grace Muresan and C/CMSgt Logan Yang on the firing line.



SM Narayana, 2nd Lt. Buchanan and 2nd Lt. Yang instruct cadets on the benchrest shooting position.

CADET PROGRAMS

CADET TESTING AT HOME – YOUR SECOND STRIPE AND ACHIEVEMENT 2

CAPT JOSEPH SPEARS

Many cadets earn their first stripe and the Curry Achievement through participation in a squadron “Great Start” orientation program. This issue of On Guard describes using the Cadet Interactive modules in AXIS, but beyond that many new cadets have questions about how to complete their second stripe and earn the Arnold Achievement.

Leadership. Much like Achievement 1, cadets are required to complete a Leadership test based on the Learn to Lead books. Volume 1 of the Learn to Lead series was mailed to all new cadets and has three chapters. This text forms the basis of the information of the Cadet Interactive leadership modules. Learn to Lead Chapter 2 is the text for your second stripe. Cadets are therefore only required to complete Cadet Interactive module 2.



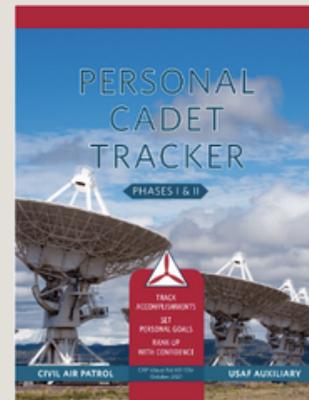
Many cadets prefer to study the content in different formats. Our national headquarters publishes audio versions of the Learn to Lead series at the cadet library (and has digital copies of the books here as well). The web address for the cadet library is here: <https://www.gocivilairpatrol.com/programs/cadets/library/l2l>

Aerospace. Since cadets will be familiar with CAP testing and Cadet Interactive, completion of any of the Aerospace modules is required for earning your second stripe. Cadets can complete the aerospace modules in any order. The text for the modules come from the Aerospace Dimensions books that were provided to cadets as part of the New Cadet packet. Cadets can also download digital copies of the Aerospace Dimensions textbooks from eServices under the Aerospace Education -> AE Downloads and Resources menu.

In addition to the textbooks, there are numerous resources to help cadets review the material in different formats. Last year’s National AEO of the Year hosts a YouTube channel where each of the modules are taught. The URL is here: <https://www.youtube.com/c/RobertRoberts/videos>.

Finishing up. Once you have completed your leadership and aerospace testing, you should check with your chain of command to complete the remaining promotion requirements. Most cadets must wait 8 weeks between promotions but all cadets are required to pass an in-person drill test. Cadets must also attempt the Cadet Physical Fitness Test if able, demonstrate proper wear of the uniform, recite the cadet oath, and participate actively in their squadron meetings. Many squadrons require cadets to go through a Leadership Review or a PRB where you will be guided on the things cadets must learn to earn their third stripe.

A very helpful resource for cadets to keep track of their promotion requirements is the Cadet Personal Tracker



CADET PROGRAMS - CADET INTERACTIVE

HOW CADETS EARN PROMOTIONS WITH CADET INTERACTIVE

BY CAPT JOSEPH SPEARS AND C/MSGT DANIEL FEALY

In October, National Headquarters released major changes to the Cadet Program through new regulations, pamphlets, and forms. They also changed the way that cadets complete the Leadership and Aerospace Education knowledge requirements for each achievement through a tool called Cadet Interactive. This article will describe the steps necessary to access and complete the Cadet Interactive modules and will highlight common problems that our members encounter when doing so.

Cadets who do not have an internet connection at home or who require special accommodations can still take written tests through their squadron testing officer.

ACCESSING AXIS

The Cadet Interactive modules are available in the AXIS learning system. AXIS can be found by logging into [eServices](#) and using the menu to "Online Learning" and "Learning Management System".

After selecting the Learning Management System, connect to the AXIS LNS Portal by clicking the button at the top of the page.



Cadets will see two new tabs in the AXIS home page. These tabs are named "Cadet Achievement" and "Honor Credit". Clicking the "Cadet Achievement" tab will give a summary of the testing requirements for your current achievement, your personal tracker, and will list the interactive versions of the modules that are available to you under Open Courses.

In addition to the changes to the way material is accessed, cadets will notice a new Aerospace Dimensions Module 7 that covers Cyber topics.

As before, cadets must complete Leadership modules in order but may complete the Aerospace modules in any order.



Civil Air Patrol
U.S. Air Force Auxiliary

Welcome Daniel Patrick Fealy

MAIN PORTAL | MY TRANSCRIPT | BADGES | COURSE CATALOG | CADET ACHIEVEMENT | HONOR CREDIT

Congratulations for completing Cadet Achievement 7!

Please note that you have a new challenge for this achievement, to write an essay and deliver a speech to the unit. Be sure to check out the Stripes to Diamonds page for the topics and critique forms. Achievement 8 also represents the last Drill & Ceremonies performance test, you're a drill master now!

To help keep track of what you've done, you can use this list of achievement items on the right. Note that this is for your personal tracking, it isn't an official record. You can see your eServices record here. If you ever have any trouble with a test or a promotion, be sure to talk to your chain of command for help.

[Stripes to Diamonds](#)

Achievement 8	
Not Awarded	
Eligibility Requirements	Completed
Leadership - Task 1	
US Ch. 8 - Open-Book Test or Cadet Interactive	
Leadership - Task 2	
Drill & Ceremonies Performance Test	
Aerospace - Dimensions (Big Module)	
Open-Book Test or Cadet Interactive	
Fitness	
1 Activity & Attended (P2 - 180 Days)	
Character	
1 Monthly Forum	
Special Requirement	
Leadership - Speech & Essay	
Honor Credit	<input type="checkbox"/> Yes <input type="checkbox"/> No
Goal Date	
Promotion Effective Date	

Open Courses

Aerospace 2 | Aerospace 3 | Leadership 4 | Leadership 5

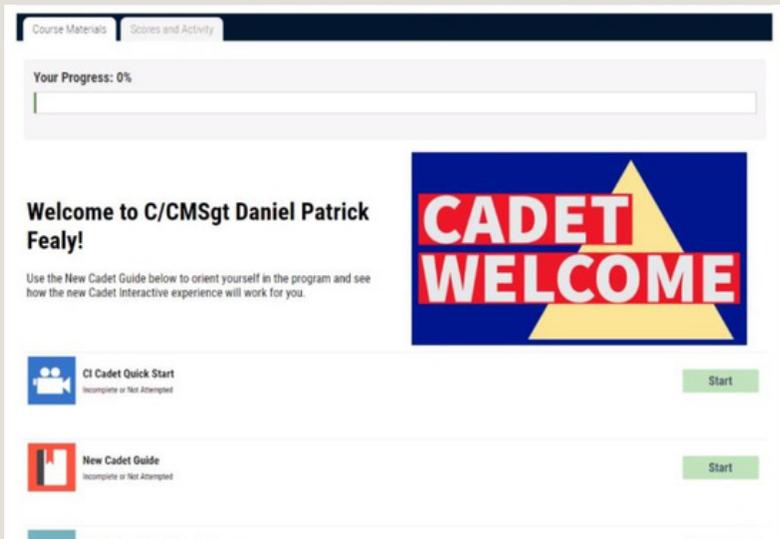
CADET PROGRAMS - CADET INTERACTIVE

Cadets who are working toward Achievement 1, the Curry Award, must also complete the Cadet Welcome Course.

COMPLETING THE CADET WELCOME COURSE

Although only required for new cadets, the Welcome Course is encouraged for every cadet.

Under Open Courses, find the Cadet Welcome Course and click the “Enroll” button. This will open a popup window and allow you to go directly to your course. If you leave AXIS before you complete the course, it will be listed in the AXIS home page under the Main Portal tab.



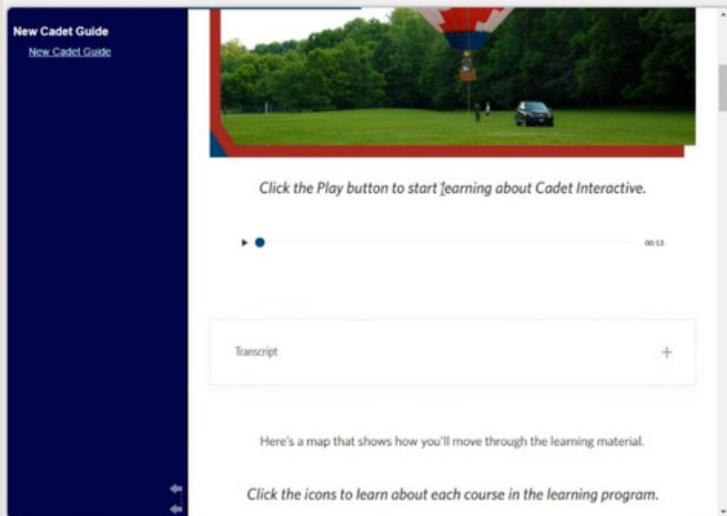
When you open the course, it will show a list of tasks that must be completed to get credit. Each of these tasks list their status and have a Start button. Your current progress is also displayed at the top of the page.

You can return to the AXIS home page at any time by clicking the Home icon at the top of the screen.

Clicking on any video will open the video player in an overlay. At the conclusion of the video, you must click the close button in the lower right corner of the player to get credit. If you click the red “X” button in the top right of the screen, you may not get credit for watching the video. This is very important to remember.

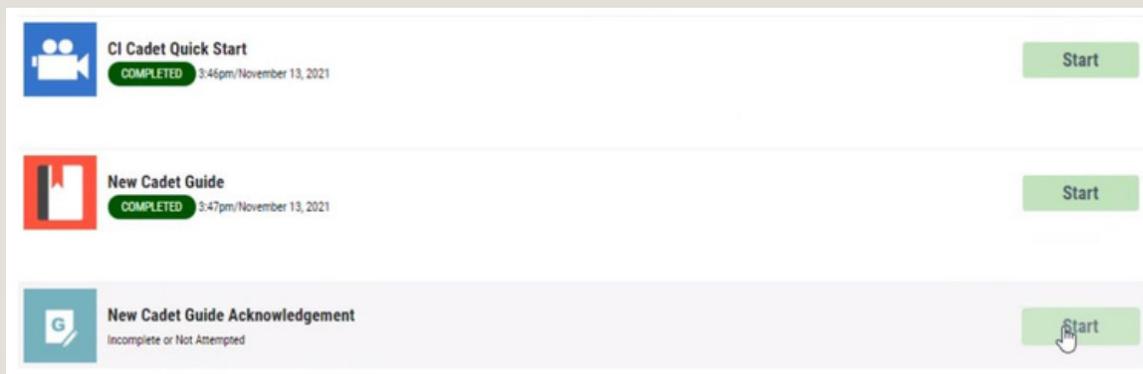


CADET PROGRAMS - CADET INTERACTIVE



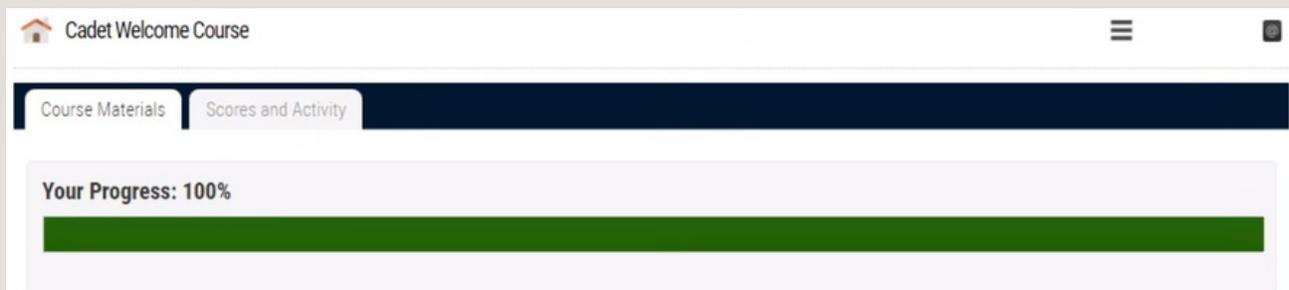
Clicking on the interactive objects in the course will open the object. Cadets can scroll through the content, watch videos, and interact with other widgets inside. Videos include transcripts which can be read rather than watched if desired.

At the end of each interactive part of the course, cadets will find short quizzes that cover the material presented. Although cadets must earn 100% on the quizzes, there is no waiting period to retake the quiz again. Once you have completed the quiz, you will receive credit for completion of the interactive object.



The final step that cadets must take to complete the course is to complete the Acknowledgement. This is done by clicking the Start button in the main course page and answering the acknowledgement question.

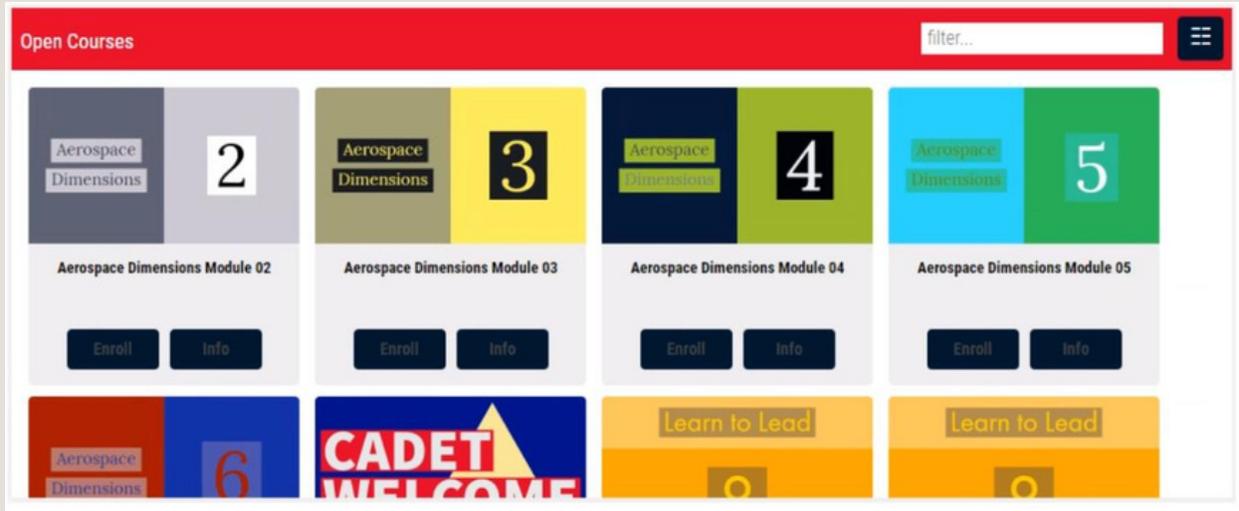
Once this is done, cadets will see that the progress indicator displays 100% complete and the course can be exited.



CADET PROGRAMS - CADET INTERACTIVE

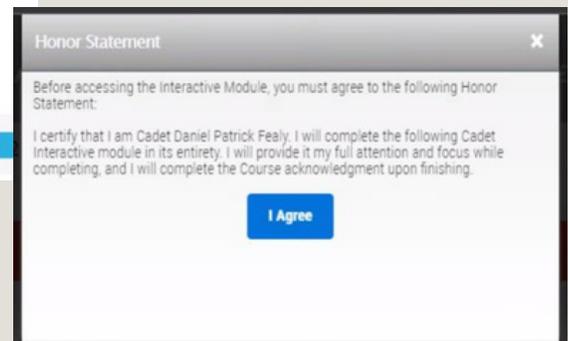
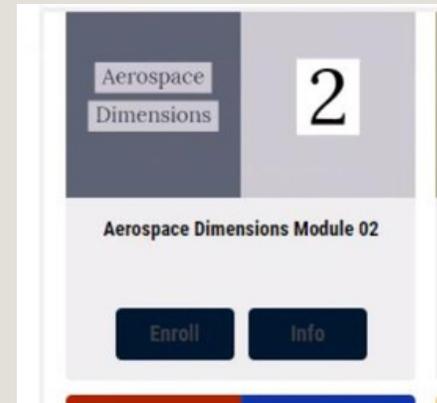
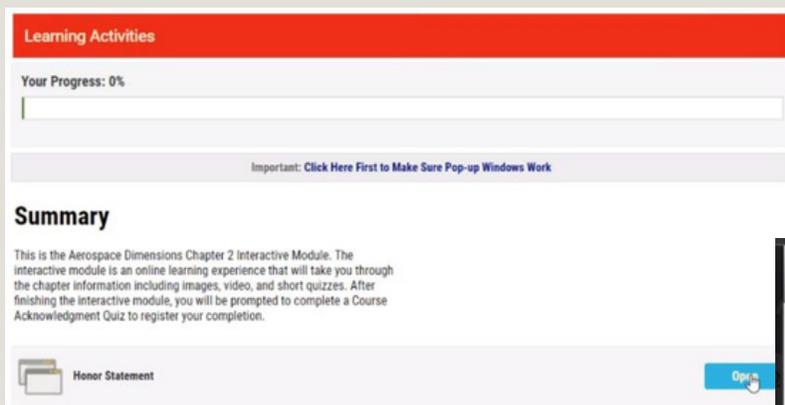
COMPLETING AN INTERACTIVE MODULE

Under Open Courses in the Cadet Achievement tab, find a Cadet Interactive module to complete.



Once the module is identified, click the Enroll button in the same way as the Cadet Welcome Course. This will open a confirmation dialogue that allows the cadet to open the course. Once enrolled in a module, members can find the module on the AXIS home page under the Main Portal tab.

Unlike the Cadet Welcome Course, interactive modules require cadets to agree to the Honor Statement before the rest of the module becomes available.



CADET PROGRAMS - CADET INTERACTIVE

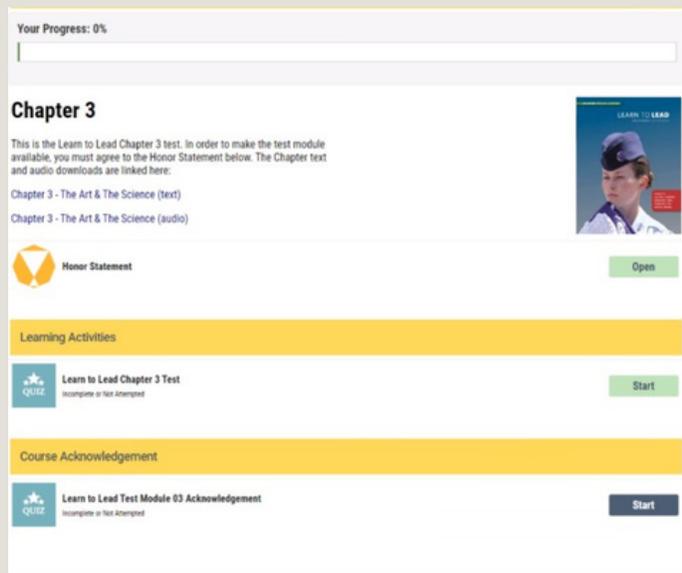
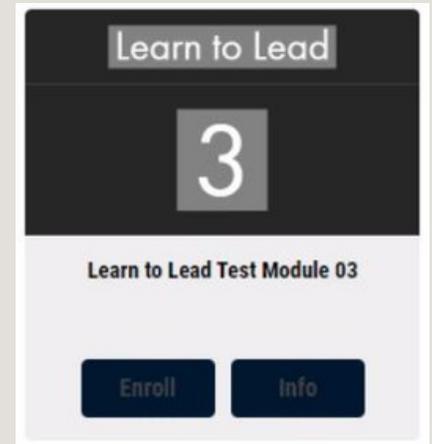
HONOR CREDIT

Although cadets can advance in the Cadet Program by completing the Interactive Modules, cadets have the option to complete their Leadership and Aerospace requirements through testing instead. Tests can be administered in paper form by the squadron Testing Officer during a squadron meeting. Another option for cadets is to complete the online tests in the Honor Credit tab in AXIS.

Cadets who complete both the Interactive Module and the written test for an achievement are eligible to wear a silver star device on their achievement ribbon.

Cadets can no longer access the online tests through the old Learning Management System in eServices but must navigate to AXIS and go to the Honor Credit tab there. Currently, only the Learn to Lead test materials appear under the Honor Credit tab.

Once a cadet finds the desired Learn to Lead module under the Honor Credit tab, the cadet must enroll in the module as was done with the Interactive Modules.



As with the Interactive Modules, cadets must agree to the Honor Statement before the test materials appear to the cadet. Once the Honor Statement has been accepted by the cadet, the cadet can press the Start button next to the chapter test.

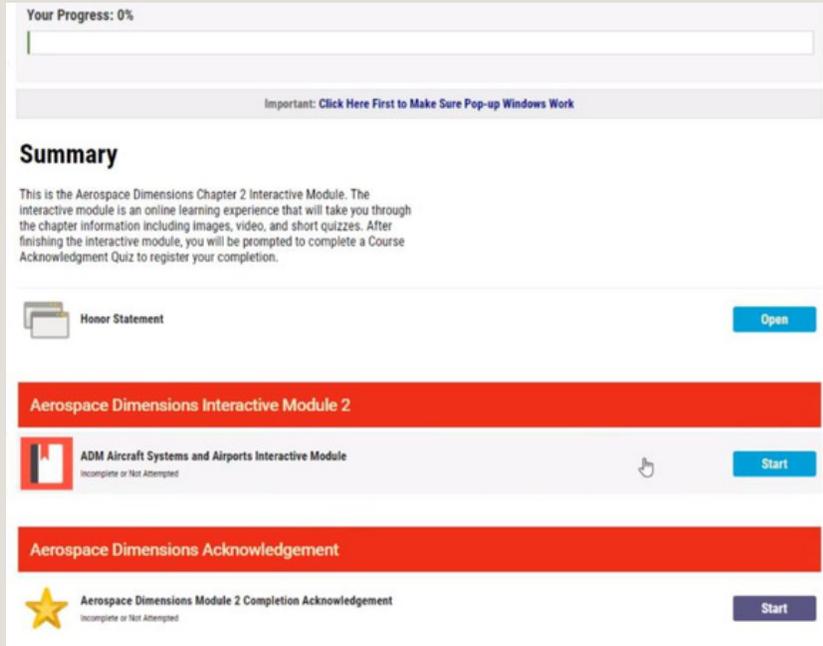
Cadets who have completed testing under the old system will be familiar with the testing interface under AXIS.

Cadets are presented with a series of multiple-choice questions and the quiz is timed. Cadets can "mark" questions to return to them if time remains.

Cadets have 30 minutes to complete these tests and a passing score is 80% of these twenty-five question quizzes. If cadets fail the honor credit quiz, the cadet must wait seven days before retrying.



CADET PROGRAMS - CADET INTERACTIVE



Once the Honor Statement is accepted, the Interactive Module becomes available.

Clicking the Interactive Module will also bring up the content panel in the same way as the Cadet Welcome Course.

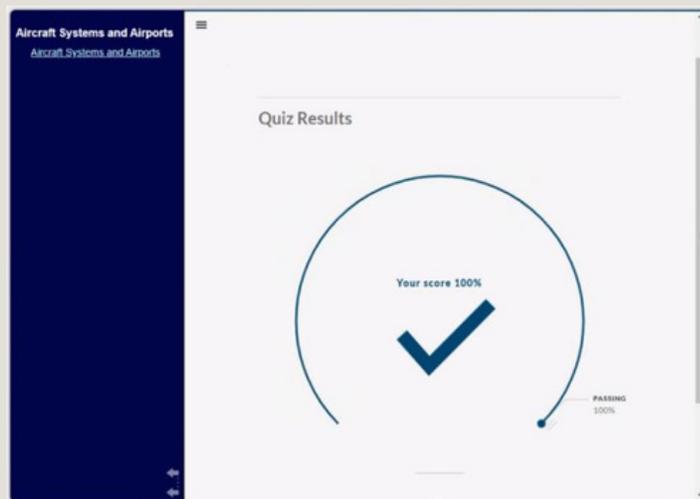
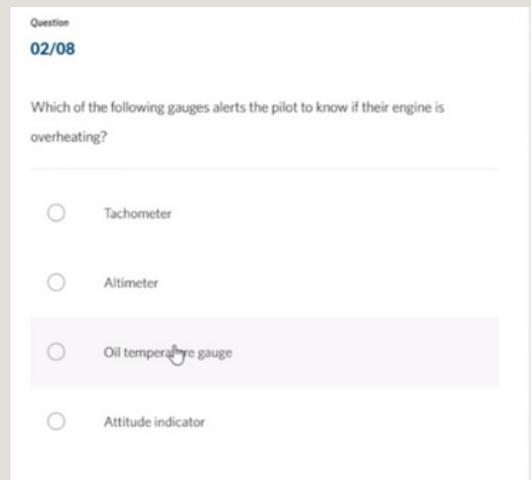
Like the Cadet Welcome Course, cadets can scroll through the content, watch videos and interact with widgets.

Throughout the course, cadet will be presented with checkpoints and quizzes to reinforce the material presented.

Once all of the Lessons are completed in the module, the cadet is presented with the

Knowledge Check which is a type of quiz. Cadets must earn 100% on the quiz to complete the course but may retake the quiz as many times as needed without the need to wait between attempts.

Once the quiz is complete, the cadet can close the Interactive Module and proceed to the Completion Acknowledgement.



As with the Cadet Welcome Course, cadets must click the Completion Acknowledgement to get full credit for the course.

CADET PROGRAMS

Sept 24th was National Girls In Aviation Day. As part of that day On Guard Magazine is highlighting our women cadets that are training for Private Pilot.

C/1STLT LENA AMATO

I began flying in the summer of 2019 at Skyview aviation in Tracy California.

I have logged over forty hours in a Cessna 152. I am hoping to solo on my 16th birthday and in preparation I am flying weekly with my instructor and my father. My long-term goal is to be a commercial pilot.



CADET PROGRAMS - FLIGHT TRAINING



FASTEST WAY FOR CADETS TO EARN THEIR PRIVATE PILOT WITHOUT SPENDING A DIME

BY SM IVAN NOURIPOUR

The following is the most efficient way for cadets to earn their Private Pilot certificate leveraging everything CAP has to offer without spending a dime.

Objective #1:

- Become accepted into the Cadet Invest " Cadet Wings Program" (60 hours of funded flight time in 6 months { minimum required hours is 40})
 - to be a competitive applicant cadets must have (in order of efficiency)
 - Pass FAA written knowledge test for Private Pilot - NO FINANCIAL FACTOR
 - CAP has partnership with EAA and cadets can become Young Eagles after their first Orientation ride (I have noticed that squadrons forget to issue "first Orientation ride Certificates" which is useful documentation for this. With this membership comes
 - FREE access to Sporty's Pilot Shop "Learn to Fly" course (\$249 value). In addition, your fee for the FAA knowledge test is reimbursable.
 - FREE first flight lesson
 - FREE access to EEA Virtual Flight Academy - Stage One: Fundamentals of Flight
 - Access to flight training awards, education scholarships, and Air Academy camperships
 - Become an officer (Mitchell Achievement) - NO FINANCIAL FACTOR
 - 3rd Class medical certificate - FINANCIAL FACTOR
 - \$160.00
 - Solo in a powered aircraft - FINANCIAL FACOTR
 - Can attend solo academy \$800.00
 - LT Col Edward J. Myzie Flight Academy Scholarship
 - None in California *Could be an area to work on*

As can be seen there are various resources available for cadets to pass their written test without paying anything, the only financial obstacles I see is that cadets need to find a way to cover the 3rd class medical and their path to obtain their solo flight. Currently there are no powered flight academies scheduled and all are NCSAs with none of them being held in California. There is also a program called NorCal Flight academy that allowed cadets to train on the Cessna 172 at Livermore at discounted prices.

CADET PROGRAMS - FLIGHT TRAINING

CADETINVEST SCHOLARSHIP AND ASISTANCE APPLICATIONS ARE OPEN

BY CAPT JOE SPEARS

CadetInvest is a program that offers financial assistance to pay for flight training, career exploration and undergraduate education. CAP uses a single application for all of its scholarship and funding and this application is found in eServices. The application period is open through 31 December 2021, so cadets are encouraged to apply As soon as possible.

Civil Air Patrol is proud of the financial assistance that it provides to select, deserving cadets. Some programs are merit-based awards meaning that cadets compete for funding based on their experience and education. Other programs are needs-based. That means that cadets must meet specific financial criteria for eligibility. Many cadets will be eligible for both types of programs so all cadets are encouraged to apply. This year's scholarship portfolio is over \$1.35 million in financial assistance.



While some programs require cadets to be a particular grade or rank, not all programs do. If there is a scholarship or assistance program that cadets do not currently qualify for, those cadets are encouraged to aggressively promote so that they will be eligible for those programs next year.

Other requirements, such as academic requirements, are described for each award in the Cadet Invest application in eServices.

For full details about how to start your CadetInvest application, please visit the CadetInvest page on gocivilairpatrol.com.

The CadetInvest application can be found in eServices under the Cadet Programs menu option.

Once the CadetInvest application page is opened, click the "Apply for CadetInvest" module.

Cadets must review and complete the fields in all seven steps of the application process to be considered for funding opportunities.

Continued...



CADET PROGRAMS - FLIGHT TRAINING

CADETINVEST SCHOLARSHIP AND ASSISTANCE APPLICATIONS ARE OPEN

...CONTINUED

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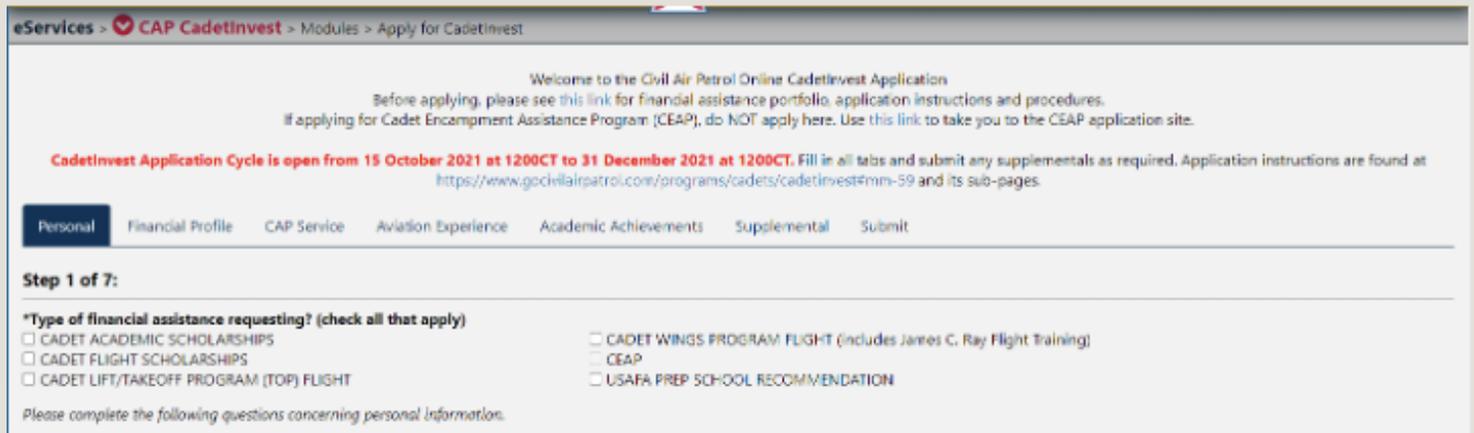
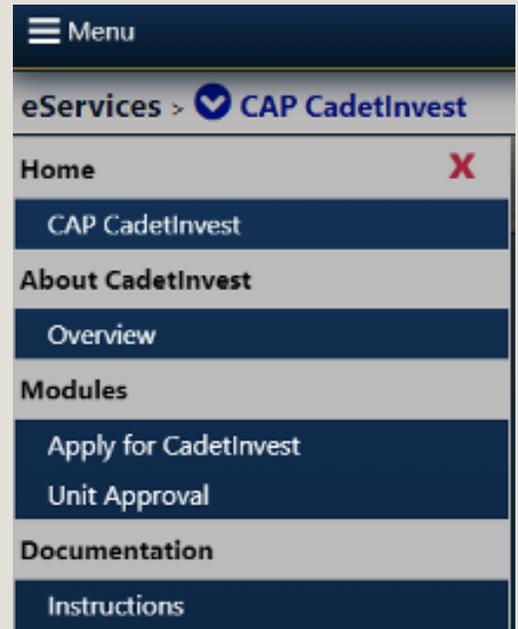
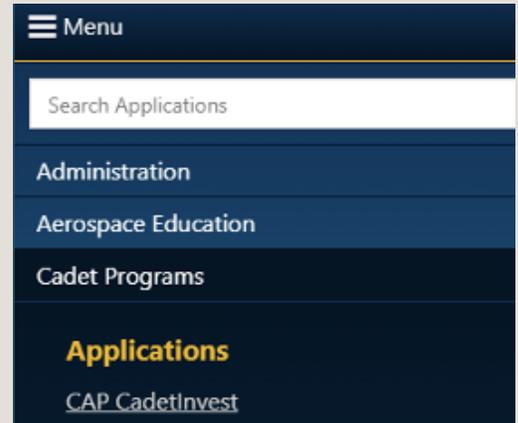
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SQUADRONS



SQUADRON 10 PALO ALTO

**NRA MARKSMANSHIP
MEDALS
9 OCT 2021**

Congratulations C/CMSgt Gu, C/MSgt Muresan, C/SrA Kapur, and (not pictured) C/SrA Muresan of Civil Air Patrol - Jon E. Kramer Composite Squadron 10 - Palo Alto for achieving their first NRA - National Rifle Association of America marksmanship medals! Thanks Civil Air Patrol East Bay Cadet Squadron 18 for hosting the event!



SQUADRON 13 WATSONVILLE

**PROMOTION TO
C/SMSGT
19 OCT 2021**

Santa Cruz Composite Squadron 13 had a promotion ceremony for Cadet Low's promotion to C/SMSGT. Cadet Low is also the new squadron CAC rep for Group 2.



SQUADRON 18 HAYWARD

**STEM KITS
2 NOV 2021**

East Bay Cadet Squadron 18 held some fun activities on their Fifth Tuesday of the month. AEO 1st Philip Cameron Smith leads cadets in STEM activities. The cadets built devices from STEM kits focused on cams and cranks. .



AEO 1st Philip Cameron Smith leads cadets In STEM activities.



AEO 1st Philip Cameron Smith leads cadets In STEM activities.

SQUADRONS



SQUADRON 36 SAN JOSE

CPR AND FIRST AID 30 OCT 2021

Cadets at Squadron 36 spend their Saturday learning how to save lives by getting certified in CPR and First Aid.

Hosted by Lt Winters and Lt Bird. 10 Cadets learned the purpose and mechanics of cardio pulmonary resuscitation, practiced their skills using manikins with real-time feedback, and learned first aid techniques.

All cadets passed the skills final!



SQUADRON 44 CONCORD

BUSY MONTH OCT 2021

Diablo Composite Squadron 44 had a very busy month with Tango Flight Training Day, Young Eagles, the 21-M-0535 Search & Rescue Mission, NCOS North, CyberPatriot Competition XIV Round 1, O-Rides, and TWENTY promotions



C/A1C Daniel Delgado experienced hearing a beacon on his first O-Ride with Pilot Lt Col Christopher Suter, C/MSgt Giovanni Behrens (2nd Ride), and C/TSgt Jackson Martin (backseat).



Squadron 44's participants completed the NCOS North 2021 weekend, with 2 other NCOS grads missing photo op so they could continue competing in Round 1 of Cyberpatriot XIV.



SQUADRON 80 SAN JOSE

RECOGNITION 2 OCT 2021

San Jose Senior Squadron 80 thanks California Wing for recognizing several of our members. 1st Lt Richard West, Commander, recognized as Airborne Photographer of the Year; Capt Stephen Swale as Communicator of the Year; 1st Lt Kailash Kalidoss as Frank Brewer Memorial Aerospace Award Senior Member of the Year (2nd year running); and 1st Lt James Bird as Health Services Officer of the Year. Capt Swale also received the CAP Distinguished Aviator Award for his outstanding pilotage under duress (see our previous post). Congratulations to all of our members, and thank you to San Francisco Bay Group 2 for nominating them.



SQUADRONS



SQUADRON 86 SAN FRANCISCO

PSEUDO-BIVOUCAC 9-10 OCT 2021

San Francisco Cadet Squadron 86 held a pseudo-bivouac including: color guard practice, flight simulators, rocket launch, uniform class on ironing & shoe-shining, Apollo 13 movie, s'mores, ship tour of the USS Rushmore, and closing it out with the Blue Angels. No wonder the weekend went by so fast!



SQUADRON 156 TRI-VALLEY

BALLOONS WIND PROPULSION AND MORE 6 OCT 2021

At this week's squadron meeting, cadets had the opportunity to challenge themselves by building their own version of a hot air balloon with a marble as a passenger, applying wind propulsion help their balloons cross the room!



SQUADRON 188 OAKLAND

NASA'S JAMES WEBB SPACE TELESCOPE 26 OCT 2021

Great Aerospace Education presentation tonight by California Wing Deputy Director of Aerospace Education (and Civil Air Patrol - Squadron 188 Oakland member!) Maj Mark Fridell about the NASA's James Webb Space Telescope



SQUADRON 192 SAN CARLOS

NO ACTIVITIES
POSTED
FOR OCT 2021

EMERGENCY SERVICES**SANTA CLARA COUNTY SHERIFF'S OFFICE JOINT EXERCISE****BY MAJ STEPHEN RENWICK**

On the weekend of October 23, CAP was privileged to participate in a joint search-and-rescue exercise with the Santa Clara County Sheriff's Office (SCSO) search-and-rescue teams.

SCSO volunteers are known locally as the people who go out and find lost hikers and other people in the southern Bay Area. Jackie Tubis, long-term CAP member and an Incident Commander from the Palo Alto squadron, also serves as the SCSO SAR Director, managing those teams of volunteers and bringing her extensive SAR expertise to bear. This year's exercise brought in teams not only from SCSO but also myriad other local SAR agencies including Alameda, Contra Costa, Marin, and San Mateo Sheriff's Dept., CalFire, and the Air National Guard.

The exercise was held in the Henry Coe State Park near Morgan Hill, CA, and included about 120 participants. The main focus of the exercise was training SCSO and other volunteer ground teams in searching for simulated lost hikers. Highlights included helicopter transport of multiple ground teams to a remote starting location in the park and overnight survival camping by SCSO Academy graduates.



Henry Coe Park is in the hills a short distance from San Martin, southeast of San Jose. Its many hiking trails over the hills are an attraction for local hikers and a challenge for SAR teams, and radio communication in particular can be quite difficult. CAP was then asked to provide highbird communication support. In addition, we were invited to have CAP GT members work embedded with the other agencies' ground teams.

Unfortunately, forecast IFR weather and rain in the area meant that flight ops were canceled. The CAP team for the day thus included IC Steve Renwick, deputy IC Mitch Richman, AOB Mike Gross, and GT members James Bertz, Kathy Brown, Elsie Lam, and Alexei Roudnev.

The operation included helicopter transport of ground teams from the central location to a remote starting point. Ops included three helicopters, one each from CalFire, the Air National Guard, and SCSO, and the helibase was itself about a mile distant from the ICP. Teams were taken out there by 4x4 vehicles. As an AOB, Mike Gross had a particularly interesting assignment: he was asked to provide coordination of the effort, informing the SCSO IC when helicopters were arriving and departing, directing teams to helicopters, and acting as liaison between helicopter crews and the ICP. Meanwhile, since helicopter ops is a little out of our area of expertise, an officer from CalFire also acted as the helibase operator, speaking to helos on the radio and keeping them apprised of traffic and landing conditions.

Continued...

EMERGENCY SERVICES

SANTA CLARA COUNTY SHERIFF'S OFFICE JOINT EXERCISE

...CONTINUED

Meanwhile, our three CAP GTMs and one GTL were individually embedded with the SCSO ground teams; CAP GTL Bertz led his team of people from multiple agencies. Some of them got to ride on the ANG and CalFire helicopters on the way out to their launch point. Team members generally performed grid searching in challenging terrain for three simulated lost hikers. For instance, one simulated lost person was instructed to position herself under low-lying ground cover, difficult to see, and to call weakly for help when she heard the team come closer. Team members also practiced litter carrying, communicating with the ICP, meeting up when the simulated hiker was found, and transferring the hiker to a helicopter for rescue.

We were able to learn about some other methods of communication in difficult areas without highbird support. SCSO used FirstNet cell phones, their own portable repeaters,

and Nano GPS units (with text capability) with varying degrees of success, and were able to maintain contact with field units at all times. The SCSO did say that the highbird would have been a big help.

The ground teams performed well. 1Lt Roudnev commented that the exercise was a good way to practice the basics of SAR as well as to learn how the other agencies did it. Maj Bertz was able to train some of his team in the basics as well as in the differences between simulated operations.

The exercise provided a great opportunity for CAP not only to train with other agencies but also to show them what we can do.



EMERGENCY SERVICES

**GROUP 1 INTERAGENCY
 SAREX**

1ST LT LUMEN "ADA" HURST

During the recent Group 1 inter-agency SAREX with Ventura County SAR, two Group 2 members Maj Kathy Brown, and Lt Lumen "Ada" Hurst, flew a CAP aircraft down to SoCal and took part in a sortie with Lt Amanda Rohlke. Lt Hurst, trained for MS, MSA and MRO and mentioned "My first flight in a CAP plane and I was so excited! (Let alone first flight in a small plane) Got to fly at night! Loved it!."

Semper Vigilans!



From right to left, Maj Kathy Brown, Lt Lumen "Ada" Hurst, and Lt Amanda Rohlke pictured In front of Oakland's CAP481.



Maj Kathy Brown, and Lt Lumen "Ada" Hurst, on a sortie with Lt Amanda Rohlke.



Lt Lumen "Ada" Hurst, training for Mission Scanner

AEROSPACE EDUCATION



Cadets, pilots, and safety officer at the glider they were supposed to fly



Cadets moving the right wing into place

IMPROVISATIONAL AEROSPACE EDUCATION:

What do you do when your glider O-flights are canceled because of weather? You **build a glider**, of course!!

BY CAPT V. HENSON

Five cadets from the west bay area, four from Squadron 10 and one from squadron 192, together with a safety officer and a parent, arrived at the Byron airport (C83) bright and early for their scheduled day of glider O-flights. Unfortunately, the weather outlook was not terribly good at C83 on this morning. On arrival in their cars they found overcast at 300 feet, fog, and visibility of 1/2 mile. For several days the weather pattern at C83 had been fog early, burning off my mid- to late-morning, and it was hoped that pattern would hold on this day. But it didn't take long to realize that any burn-off was going to be very slow, and the team had a minimum of two hours or more to kill before any flight might become possible.

There is very little that is more boring than standing around a deserted airport (nothing was flying) waiting for the sun to dry things up. So Capt Van Henson, the glider pilot, and Capt John Randazzo, the glider program's flight instructor, put their heads together, asking, "What could we do that would be both fun and educational for the cadets?" "Why not have them build a glider?" was what they came up with. Gliders, because of the ever-present possibility of landing out, are built to be readily assembled and disassembled, and transported in a trailer.



First look at the glider

Capt Henson owns a single-place glider that is kept in a trailer at C83, so the cadets were given the task of getting it out of the trailer, piece by piece, putting it together, learning how the parts fit, how the controls work, how the control surfaces function, and about two flight instruments peculiar to gliders: the yaw string, which tells the pilot if her flight is coordinated, and the energy compensated variometer, which tells the pilot if the air he is flying through is going up (lift) or down (sink). Once the glider was assembled, each cadet had the opportunity sit in the glider, work each of the controls, and visualize flying the bird.

Continued next page



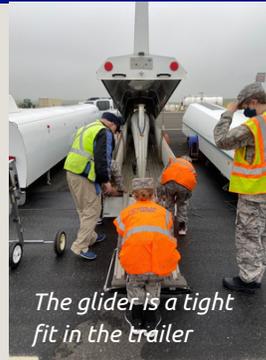
Assembling the wing rider

AEROSPACE EDUCATION

IMPROVISATIONAL AE

...CONTINUED

They also learned that soaring pilots, like aerobatic pilots, generally fly with parachutes, and each was taught how to wear one, how to check that it is legal, and how one would use it. Once they all had the chance to get the feel of the aircraft, it was time to disassemble the glider and put it back in the box. The cadets also learned several things they would not normally hear about in an O-flight.



The glider is a tight fit in the trailer



Cadets and safety officer examine the spar pin holding the wings on

The Crew:



C/SrA Djoni Muresan Sq. 10



C/TSgt Esme Chen Sq. 10



C/MSgt Grace Muresan Sq. 10



C/SrA Perry Hall Sq. 10



C/SSgt Noelle Madden Sq. 192

Their discovery of the pilot relief tube led to a lively discussion about servicing in-flight pilot needs on a flight of several hours duration. The oxygen system led to another educational discussion about the need to prevent hypoxia. They were a bit startled when Capt Henson lowered the landing gear, as they had not noticed the lack of wheels beneath the glider. The introduction of the parachute into the proceedings led to a discussion about how gliders, when soaring, are most often turning tight circles under clouds in thermal lift, and that since thermals are often widely spaced out, all the gliders in the area may try to use the same thermal at the same time. We noted the "rules of the road" for "gaggle" flying under a thermal. Over the

course of the day we covered the various sources of lift: thermals, ridge lift, convergence lift, and wave lift. We got in some discussion of airspace regulations, noting that gliders must stay below 18,000 feet, out of Class B, and get permission to enter Class C (there are exceptions, of course). We

talked about never-exceed speed and the fact that the design of Capt Henson's glider allows the nose to be pointed straight down and with full spoilers and flaps it will not reach Vne (this was actually tested before Capt Henson bought the glider when a well-known glider pilot rented it and was sucked into a thunderhead, only escaping by pointing the nose straight down). Naturally, this led to a discussion of weather and how an aircraft can be "sucked up" into a thunderhead.

In the final reckoning, the cadets, the pilots, the Safety Officer, and the CAP Mom all had a great time and learned a LOT.



Dragging it out of the box



Putting the first wing on



One wing on... one to go!



Mounting the horizontal stabilizer. It usually takes fewer people

The Hired Help:



*Safety Officer
1LT Kai Chen*

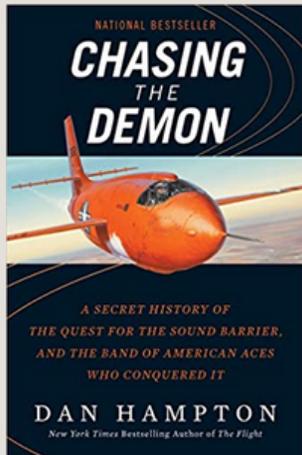


*CAP Mom
Elisa Muresan*

AEROSPACE EDUCATION

AEROSPACE EDUCATION READING CORNER - "CHASING THE DEMON " BY DAN HAMPTON

REVIEW BY CAPT V. HENSON



AE Editor's Note: *I am an aficionado of books on aviation and space, and plan to include, each month, a brief description/review of an AE related book. Review contributions welcome!*

Subtitled **A secret history of the quest for the sound barrier and the band of American aces who conquered it**, this volume relates the thrilling race to break the sound barrier in an aircraft. In the immediate post-WWII years, after the dropping of atomic bombs on Hiroshima and Nagasaki, military leaders in both the United States and the Soviet Union believed that survival

hinged on the ability to deliver nuclear weapons to targets in enemy territory faster than the enemy could deliver them. Before missiles were created that could deliver these weapons in minutes, they could only be delivered by air after flights of considerable duration. It became crucial to build the fastest aircraft, but standing in the way was *the sound barrier*-- it simply wasn't known if aircraft could be built that could survive speeds greater than Mach 1. And so, the race was on, and the stakes could not be higher because everyone on both sides believed that survival of their country was at stake!

This thoroughly researched book presents a gripping tale of this race and the men who won it. Often portrayed in modern literature and films as wild, daredevil "cowboys," Dan Hampton, a former USAF F-16 pilot who flew 151 combat missions, weaves a tale of equal parts careful and incremental aircraft science; painstaking, careful, and incremental test-piloting; and, yes, a component of devil-may-care bravado leading to that day in October, 1947 when man, specifically Chuck Yeager, first officially broke the sound barrier. (Hampton does not shy away from a long-simmering controversy about whether George Welch might have actually exceeded Mach 1 earlier in October in a diving F-86 Sabre, rightly pointing that while it could have happened, with no readouts, recordings, or instrumentation, such a flight would have been scientifically and militarily useless.)

There is much discussion of the aircraft involved and the technical evolution of the aircraft capabilities, but this story is about the men; the pilots who flew unproven craft, pushing the limits of the planes, surviving (and sometimes not surviving) harrowing mechanical failures and experiencing exhilarating successes. It delves into their histories as test pilots and (usually) combat pilots before that, and details the wide variance in personalities among this elite bunch of pilots.

We in the Civil Air Patrol have elevated General Yeager, quite rightly, into a lofty status as an aviator we should revere and (partly) emulate. Dan Hampton reminds us that he was by no means the only such hero.

When should STEM start?

BY CAPT V. HENSON

There are those, and I agree, who feel that "Aviation Education" should more properly be named Aviation and STEM (Science, Technology, Engineering, and Mathematics) Education. Because the former depends on the latter.

CAP produces STEM kits aimed at assisting STEM educators in generating excitement in youth and a longing to go into Aviation and STEM fields for a profession. But when should that start? The answer is simple: **Early**. CAP provides STEM kits aimed at children as young as 4 years old!



I tested "Code and Go Robot," a STEM kit for ages 4 and up, on my 6-year old granddaughter,

Laila. The idea is simple: the child sets up a maze, sets a block of "cheese" at one end. Using directional buttons on the back of a robotic mouse, she then programs it to go through the maze to find the cheese. Laila took to this STEM kit very quickly, programming the mouse to navigate the maze with only a few missteps. She rapidly moved on to making more intricate mazes and then upped her game by

laying out paths on the floor, placing the "cheese" in some exotic place (next to the dog's nose, e.g.). From there it was on to creating complex "dances" for the mouse to perform.



Based on an exhaustive survey of one, this STEM kit is a winner!

AIRCREW PROFESSIONALISM AND SAFETY



GROUP 2 PILOT MENTORING/ONBOARDING PROGRAM

BY CAPT STEVE SWALE

Did you know that Group 2 has initiated a program to assist FAA certificated pilots to successfully complete their CAP VFR pilot qualification process? Did you know that this program may include “funded” transition flights preparing for the “Form 5” check-ride ... and with the revisions to flight regulations in October 2020, these funded flight training and refresher opportunities may apply to previously rated CAP pilots who are now ready to return to flight. If any of these situations apply to you, you may want to read on.

Spearheaded by Capt Keith Breton and LtCol Randy Pesce, the Pilot Mentoring Program utilizes six designated “pilot mentors” within Group 2 to guide candidate CAP pilots through review and study of the new regulations, administrative procedures and practical strategies necessary to schedule CAP aircraft, and collaborate with CAP Instructor Pilots (IP) to complete required transition training flights.

After completing a review of regulations and laying out a roadmap of required transition flights, the candidate will then begin the flight training phase focusing exclusively on standardization and evaluation. During the flight phase, a limited number of “funded” flights may be authorized to complete required transition sorties such as for G1000 transition flights and may include the Form 70-5 check-ride itself. For previously qualified members, funded transition flights might also be authorized based on individual return to flight circumstances.

If you possess the necessary qualifications and this training opportunity interests you, download pamphlet CAPP 70-12, Pilot Onboarding through e-services at the URL link listed below and contact your Squadron Commander for referral to your squadron’s designated pilot mentor who will assist you further.

Download:
(https://www.gocivilairpatrol.com/media/cms/P_070012_BF1CEC706C0AF.pdf)



AIRCREW PROFESSIONALISM AND SAFETY

SAFETY FIRST? FUGETTABOUTIT!

CIVIL AIR PATROL STAN/EVAL NEWSLETTER – NOVEMBER 2021

Not too long ago in the aviation community you would hear that safety was “number 1” and that safety was paramount. Many of us in the GA community would repeat the myth that the most dangerous part of the trip was the drive to the airport. As experience would show however, there are inherent risks in flying and if we really believed safety was paramount we would stay on the ground. John and Martha King did a lot for GA when they started looking at safety from a risk perspective.

That’s not to say safety is not important. It’s critically important! But you can’t be safe if you don’t recognize the risks and take account of them. We have moved from a Safety First mentality to a Safety Culture mentality. One of the enablers of a safety culture is to realistically assess risk and figure out what you are going to do about it. Risk assessment should not only be done for every flight but at a higher level looking at the risks associated with overall operations. But for now, we will focus on dealing with risk for an individual flight.

A “risk” is usually defined as a future hazard that may impact the safety of the flight. For example, in any flight there is a risk of engine failure. We characterize a risk by its severity (how bad is it if it happens?) and its probability of occurrence. This helps us to filter out many risks as they are either very improbable or even if they happened, they would be easily handled. For any flight you can come up with an infinite list of risks. Volcanic eruption, earthquake, and zombie attacks are all risks with severe repercussions but the probability of it happening is close enough to zero as to ignore them. Other risks such as spilling your coffee on your lap, losing your iPad under your seat, or forgetting to call you mother before takeoff are more probable but can be handled without too much stress (spilling coffee could be an exception). But like anything else, assessing risk takes practice.

A good practice before any flight is to ask yourself (or your student, or your instructor, or your crew, or your passengers, or your mother) what are the top three risks for this particular flight.

KNOCK IT OFF

This forces a realistic assessment of risk. At a busy airport, the risks might include collision avoidance when there are lots of planes in the air. Or maybe there is a known squawk that might become a hazard in the wrong circumstances. Or maybe there is a gusty cross wind and so forth. The risks should be realistic, significant, and possible. Leave out the zombie attacks.

Recognizing risks is just the first step. Now what are you going to do about them? There are several ways to handle a risk.

- Avoid it – This can be as simple as cancelling the flight depending on the risk. But it can also mean taking on more fuel if fuel exhaustion is a risk or making a fuel stop. There are usually lots of options to avoid risk depending on the risk.
- Mitigate it – Perhaps we can’t avoid it, but we can mitigate it. If turbulence is a risk perhaps, we can choose a different altitude. If traffic is a risk, insist on all eyes outside and use ADS-B traffic. Again, depending on the risk, there can be many mitigations.
- Accept it – Sometimes you can’t do anything about the risk and just must accept it. You do this all the time when you go IFR or fly at night. Real risks are incurred that you accept.
- Transfer it – In some cases you can do the time-honored practice of sticking someone else with the risk. Students do this all the time when they get in a bad situation, and they hand control of the airplane to the instructor.
- Ignore it – Never, never, do this. This is the antithesis of safe flying.

Risk management is not a one-time event but is a continuous effort. Throughout the flight, evaluate and assess any new risks that come up and take the appropriate actions to mitigate the new items that pop-up. Post-flight, reflect on how you did at risk management. Did you do a good job of identifying the risks? Did you mitigate them, or could you have done better? Any lessons learned for the next flight?

Risk management is part science and part art. But like any discipline it takes practice and should be a team sport. Involve your crew and if appropriate, ATC.

AIRCREW PROFESSIONALISM AND SAFETY

PICKING UP AN AIRCRAFT FROM MX

CIVIL AIR PATROL STAN/EVAL NEWSLETTER – OCTOBER 2021

It's important to understand the hazards associated with flying an aircraft just out of maintenance and some good practices to avoid any untoward event. We recently had a safety incident occur on just such a flight. The aircraft had been in MX to replace an elevator damaged on the ground. The repair was completed, and the aircraft signed off. The pilot, being an avid reader of the Stan/Eval newsletter, performed a thorough preflight of the aircraft with particular emphasis on the horizontal stabilizer. It was a Sunday, so the pilot was not able to discuss the repair with the MX facility. But no anomalies were noted on preflight, and the horizontal stabilizer appeared to be correctly installed. As part of the normal pre takeoff procedures (it was a C182 NAVIII), trim and autopilot were checked, and trim set for takeoff. Autopilot was switched off. Everything looked good.

The throttle was advanced, and the takeoff roll commenced. All went well until the aircraft reached flying speed. Without any back pressure on the yoke, the aircraft nosed up suddenly in a very steep unsustainable climb. The pilot immediately pushed the yoke forward (not easy, it took all his strength) and dialed in full down trim. With full down trim the aircraft stabilized and could maintain level flight. The pilot immediately returned to the airport and landed without further incident. An incident was subsequently filed in CAP's Safety Information and Reporting System (SIRS) as well as alerting the FRO and others.

A subsequent investigation determined that although the elevator had been installed correctly, the trim had not been adjusted properly. The result was that when the trim was set at the takeoff position, it was actually in a position to cause the un-commanded nose up attitude. The trim was adjusted properly, and the aircraft returned to service without further incident. What are the lessons learned from this?

- Even if you do everything right in preflight expect to be surprised on a MX pickup flight. Be ready. Come to think of it, that's probably good advice for any flight!!!
- It's not required by any checklist but know what the trim tab angle should look like when the trim is set for takeoff (no, for a C182 the tab when set correctly will not be level). Make this part of your preflight. To make the check, make sure the elevator is level when you examine it.

- Don't even think of retrieving an aircraft from MX in anything but daytime VFR. If this had occurred in IFR or at night, it may not have ended well.
- You may want to only assign more experienced pilots to MX pickups. A less experienced pilot could well have come to grief in this instance.
- We have excellent maintenance facilities, but you should perform the most thorough preflight of your flying career anytime you pick up a plane from a maintenance facility. Check for damage and anomalies.

A highly experienced pilot told me that his copilot performed the preflight of an aircraft (not CAP) they were picking up from a paint shop. The flight was uneventful until the flare when the aircraft performed an uncommanded roll. The pilot flying used the control wheel and rudder to realign the aircraft for landing. Post flight inspection showed that the aileron control rod bolt was missing. Further inspection discovered that the aileron control rod bolt/nut on the other side was still attached, but only three threads kept it together. The paint shop had taken the ailerons off but failed to cotter pin the control rod bolts during reassembly. Everyone makes mistakes, so don't fall into the trap that if it is signed off by the maintenance shop that everything is perfect....and that was only one of the maintenance pick-up stories that I've heard.



AIRCREW PROFESSIONALISM AND SAFETY**CAP PILOTS AND MISSION OBSERVER INITIALS AND RENEWALS****Renewal:**

Capt Louis Mateos, renewed CAP Pilot with Maj George Michelogiannakis, on 8 Oct 21

**New CAP Glider Pilot:**

Capt Robert Gary (red shorts), completed his initial CAP Glider Pilot with Capt John Randazzo.

**Initial MO:**

Lt Col Doug Crawford, completed his Initial Mission Observer with 1st Lt Charles Griffin (ORWG), on 6 Oct 21.



AIRCREW PROFESSIONALISM AND SAFETY

DOV LINKS

PROFESSIONAL EDUCATION

Aircrew Education

1. Safety Video: AOPA - Air Safety Institute
 - a. AOPA
 - b. [Link Here](#)
2. Avoiding Hard Landings
 - a. AOPA - Air Safety Institute
 - b. [Link Here](#)
3. What's Your Limit For Landing In Gusty Winds?
 - a. Boldmethod - 10/12/2021
 - b. [Link Here](#)
4. 7 Ways To Find An Airport Hidden By Nighttime Darkness
 - a. Boldmethod - 10/2/2021
 - b. [Link Here](#)
5. Boxing the Wake
 - a. SSA - Soaring Training Videos
 - b. [Link Here](#)

Accident/Incident Case Studies

1. The Cold, Hard Facts of Ice
 - a. NASA's Callback - 11/1/2021
 - b. [Link Here](#)
2. Early Analysis: N7022G
 - a. AOPA's Air Safety Institute - 10/14/2021
 - b. [Link Here](#)
3. Low Altitude Thermal Stall/Spin
 - a. SSA - Safety and Training
 - b. [Link Here](#)

Aircrew Professionalism

- CAP Aircrew Professionalism
 - NHQ Aircraft Operations
 - [Link Here](#)
- Aviators Code of Conduct
 - NHQ Aircraft Operations
 - [Link Here](#)
- Aircrew Code of Conduct
 - NHQ Aircraft Operations
 - [Link Here](#)

GROUP 2 CAP AIRCRAFT

SEEN THIS MONTH



From left to right, Lt Amanda Rohlke, Maj Kathy Brown, and Lt Lumen "Ada" Hurst at Livermore airport.



Glider N420BA at Byron Airport.



Capt Orhan and Capt Swale after renewing Capt Orhan's Mission Observer rating.

EDUCATION AND TRAINING

SPECIALTY TRACK SPOTLIGHT

SERIES BY RICHARD WEST

The Specialty Track Spotlight will highlight a different specialty track each month. Each track is unique. On Guard will be asking Master-rated members in the spotlighted track to share some of their insights from their experiences as a member of the track.

AEROSPACE EDUCATION

FEATURING JOSEPH SPEARS (MASTER-RATED SINCE SEP 2019)



Quick Facts

- Track for Aerospace Education Officers and Cyber Education Officers (for now; may get own track)
- 66 Gp2 members enrolled (20 Technicians, 10 Seniors, and 4 Masters) as of 31 Oct 2021
- 6-6-12 month minimum time-in-rating
- Only requires squadron-level service

What does a member of this track do?

Aerospace Education is one of the three core missions of Civil Air Patrol as outlined in US Code §40302. Members of this track promote Science, Technology, Engineering, and Math (STEM) education. There are three audiences members of this track address: cadets, senior members, and the public. Some members of this track focus on a single audience, and some focus on multiple audiences. Regardless, members of this track are passionate advocates for CAP's Aerospace Education mission.

What makes a member of this track successful?

California Wing prides itself on offering a high-quality Aerospace Education Officer (AEO) School where leaders at all echelons review all the subject matter required for the Technician rating. At the AEO School, students learn about the diverse variety of programs offered by CAP to build a vibrant, engaging AE program for all three target audiences. Combining knowledge of the AE program with the member's passion for the subject matter is the key for success in this specialty track.

What can prevent a member from progressing timely in this track?

Failing to take advantage of an AEO School offering early in one's tenure in this track is probably the biggest reason members do not make timely progress. Not only does the AEO School allow the member to complete all the requirements the Technician rating (besides time-in-rating and the rating test in Axis), attending an AEO School is a requirement itself for the Senior rating. The AEO School is also a great opportunity to connect with potential OJT mentors for the track and discover nuggets to help develop a successful, personal AE program.

Another failure members of the track can make is restricting themselves to just the content, curriculum, and programs offered by CAP. While these are excellent resources, members of this track should not be afraid to leverage their own knowledge/nerdiness to make the program their own. Making the track one's own makes completing the requirements a joy rather than a chore.

EDUCATION AND TRAINING

CALIFORNIA WING CONFERENCE SESSIONS

BY RICHARD WEST



Civil Air Patrol
CAWG Education & Training



Thank you to everyone who attended the Education and Training sessions at California Wing Conference 2021. While technical issues prevented the sessions from being recorded live, California Wing Education and Training would like to make the following available to all members to view to learn more about the CAP Senior Member Education and Training Program. In the weeks that passed since the conference, CAWG E&T and NHQ have issued new guidance which has been incorporated into these recordings.



Session 1: Mechanics of Education and Training
<https://bit.ly/3Hsu8hp>



Session 2: Education and Training at the Unit/Group
<https://bit.ly/3CsGNgQ>

Viewing these recordings requires an active PCR O36 session

In Aug 2020, Civil Air Patrol replaced the Senior Member Professional Development Program with the Senior Member Education and Training Program. This briefing session will cover the basics of the program, clarify terminology, and review the tools used to administer the program.

With the program's one-year anniversary behind us, this session will provide a preview of any changes coming in FY22

Civil Air Patrol's Senior Member Education and Training Program promised to democratize the professional development. Gone were Squadron Leadership Schools, Corporate Learning Courses, Region Staff Colleges, and National Staff Colleges with limited offerings, travel, and lodging expenses. Members could pursue their professional development on their own terms and timelines close to home.

However, how many squadrons and groups have been able to develop their programs to fulfil this noble goal? This Briefing session will cover the requirements to establish an instructor core at the local level, reinforce which echelon should handle which levels in CAWG, and some tips on how to manage a successful program at the local level.



EDUCATION AND TRAINING

GROUP 2 EDUCATION AND TRAINING ACHIEVEMENTS

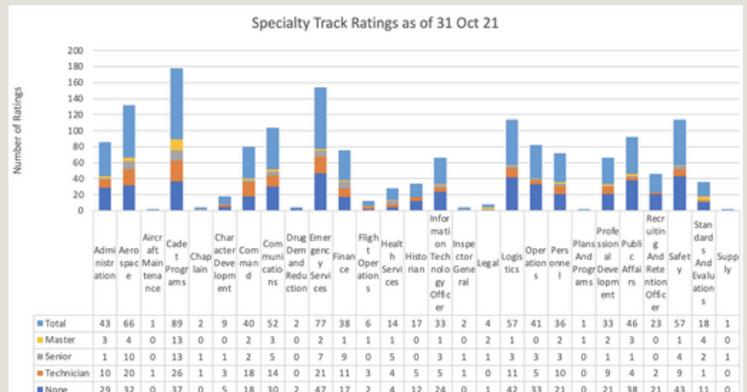
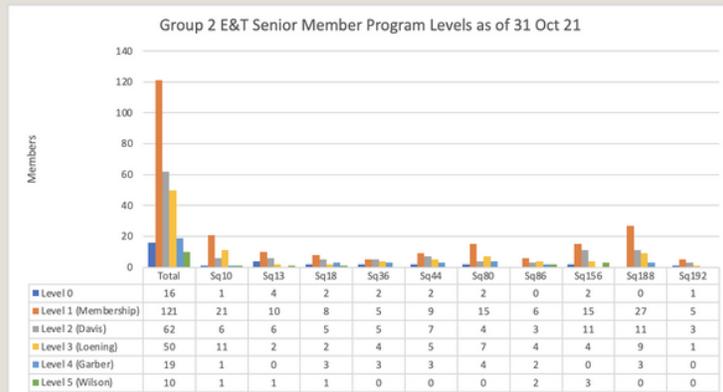
BY RICHARD WEST

October Senior Member E&T Program Levels

- Capt Harris, Ian S (664240) [Sq192]
Level 2 — Benjamin O. Davis, Jr. Award
2021-10-02
- SM Fletcher, Hannah E (528530) [Sq156]
Level 1 — Membership Award
2021-10-20
- SM Shah, Shreedhar M (671907) [Sq156]
Level 1 — Membership Award
2021-10-27

October Specialty Track Ratings

- Capt Spears, Joseph L (578345) [Sq156]
Cadet Programs — Master
2021-10-12
- Capt Nadeau, Remi Robert (574259) [Sq86]
Aerospace — Senior
2021-10-07
- Capt Mateos, Louise M (589244) [Sq10]
Aerospace — Technician
2021-10-01
- 1st Lt Schultz, Robert J (609678) [Sq10]
Emergency Services — Technician
2021-10-01
- Capt Harris, Ian S (664240) [Sq192]
Safety — Technician
2021-10-02
- Capt Carter, Michael E (218816) [Sq156]
Aerospace — Technician
2021-10-14
- 1st Lt West, Richard (594385) [Sq80]
Cadet Programs — Technician
2021-10-22



FUN AND GAMES

MYSTERY WORDSEARCH

BY RICHARD WEST

Up for a challenge? How about a wordsearch without an answer key? There are 20 items hidden in this grid which are connected by a common theme. The hidden items can appear horizontally, vertically, and diagonally; possibly in reverse.



OCTOBER MYSTERY WORDSEARCH

BY RICHARD WEST

The theme of October's Mystery Wordsearch? Martian landers

- Curiosity
- InSight
- Zhurong
- Perseverance
- Ingenuity
- Viking
- Pathfinder
- Sojourner
- Spirit
- Opportunity
- Phoenix
- Tianwen

